POSITION TASK BOOK FOR THE POSITION OF

National Qualification System
HAZARD MITIGATION ENGINEERING AND ARCHITECT SPECIALIST

HAZARD MITIGATION ENGINEERING AND ARCHITECT SPECIALIST

1. Competency: Assume position responsibilities

Description: Successfully assume the role of Hazard Mitigation (HM) Engineering and Architect Specialist and initiate position activities at the appropriate time according to the following behaviors.

1a. Behavior: Establish effective relationships with relevant personnel

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
1. For Section 406 mitigation, coordinate with relevant personnel, such as: ● Public Assistance (PA) Program Delivery Managers ● PA Site Inspectors ● Site Inspection Schedulers	E, F, I, J		
2. For Stafford Act Section 404 mitigation, coordinate with HM grants and planning personnel, floodplain managers, and other National Flood Insurance Program (NFIP) stakeholders to ensure that work on HM grant program projects adheres to mitigation plans.	E, F, I, J		

2. Competency: **Communicate effectively**

Description: Use suitable communication techniques to share relevant information with appropriate personnel on a timely basis to accomplish objectives in a potentially rapidly changing environment.

2a. Behavior: **Communicate HM program information**

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
3. Communicate HM program information to stakeholders, such as: ● Local, state, tribal, territorial, and Federal entities ● Professional organizations ● Private and nonprofit entities ● Public	E, F, I, J		
4. Respond to inquiries from internal and external partners in a timely manner with accurate information: ● Status of mitigation projects ● Scheduling for site inspections ● Status of HM project cost estimates	E, F, I, J		

3. *Competency:* Ensure completion of assigned actions to meet identified objectives

Description: Identify, analyze, and apply relevant situational information and evaluate actions to complete assignments safely and meet identified objectives. Complete actions within established timeframe.

3a. *Behavior:* Implement the HM program processes

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
5. Consult Authority Having Jurisdiction (AHJ) program regulations and applicable Federal Emergency Management Agency (FEMA) policies relating to HM: ● 44 Code of Federal Regulations (CFR) ● HM functional/program policy documents ● HM guidance documents ● Public Assistance Program and Policy Guide ● National Flood Insurance Program standards	E, F, I, J, T		
6. Coordinate with supervisor to address and resolve Stafford Act Section 406 mitigation issues: ● Establish HM program development ● Conduct site inspections ● Ensure applicant HM education and coordination ● Develop Section 406 mitigation actions ● Address repair cost reconciliation issues	E, F, I, J, T		
7. Implement advanced HM program processes: ● Inspect and evaluate damaged structures and infrastructure ● Write site inspection reports ● Establish and promulgate consistency standards for site inspection reports	E, F, I, J		
8. Perform administrative duties: ● Records management ● Data migration ● Contract responsibilities, as assigned by immediate supervisor	C, E, F, I, J, T		
9. Provide design and engineering analysis to determine HM proposal scope and provide input for mitigation cost estimates.	C, E, F, I, J, T		
10. Provide technical assistance on HM grant program applications: ● Evaluate potential mitigation measures for technical feasibility and recommend alternatives, if necessary ● Evaluate proposed mitigation measures for cost effectiveness and propose alternatives, if necessary ● Evaluate cost effectiveness of proposed mitigation measures in function of building codes	E, F, I, J		
11. Provide technical assistance to local, tribal, and territorial building code officials: ● Organize/attend technical workshops for building code and land use officials, contractors, designers, and trade workers	E, F, I, J		
12. Review and interpret plans, blueprints, site layouts, specifications, and construction methods.	C, E, F, I, J, T		

3b. *Behavior:* Conduct architectural and engineering studies and analyses

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
13. Conduct technical engineering reviews of infrastructure performance or failure, and recommend appropriate mitigation.	E, F, I, J		
14. Evaluate a variety of engineering systems and facilities (such as mechanical, electrical, transportation) for compliance with AHJ or FEMA policy and design guidelines (for example, P-361) within the specialty area.	E, F, I, J		
15. Participate in preliminary damage assessments and site inspections: ● Perform architectural and engineering evaluations to support preliminary damage assessment reporting and conclusions	E, F, I, J		

3c. *Behavior:* **Provide advice and guidance on architectural concepts and practices**

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
16. Develop cost estimates for proposed mitigation solutions when building specialist or architectural subject-matter expert input is necessary.	C, E, F, I, J, T		
17. Provide code and compliance analyses for the building envelope and compare to the Public Assistance Program and Policy Guide: ● Identify area-specific code issues and explain applicability to HM proposals (such as state-specific high velocity codes)	C, E, F, I, J, T		
18. Review architectural designs for HM grant program to assess sound mitigation techniques and compliance with policy guidelines: ● FEMA P-361 storm shelters and safe rooms	C, E, F, I, J, T		
19. Support and collaborate with stakeholder staff in identifying, developing, and reviewing mitigation projects for sound mitigation techniques.	C, E, F, I, J, T		

3d. *Behavior:* **Advise and guide on HM program concepts, rules, regulations, and processes**

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
20. Serve as a subject-matter expert: ● Facilitate internal workshops on benefit-cost analysis, the Substantial Damage Estimator (SDE), and general risk assessment	E, F, I, J, T		

3e. *Behavior:* **Advise and guide on hydraulic/ hydrologic engineering concepts and practices**

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
21. Collaborate with stakeholders to identify, develop, and review Section 406 mitigation projects for best-practice mitigation techniques.	C, E, F, I, J, T		
22. Collect data and information to define hydraulic problems and conduct flood analysis and hydraulic studies, such as: ● Perform preliminary HEC-RAS hydraulic analysis to evaluate mitigation alternatives or to support applicant	C, E, F, I, J, T		
23. Help benefit-cost analysis subject-matter experts develop event frequency data for use in their analyses.	C, E, F, I, J, T		
24. Summarize information gathered from meetings/studies and disseminate to stakeholders.	E, F, I, J		
25. Write technical reports presenting hydrologic/hydraulic, engineering, architectural, or hazard/risk study results: ● Exploratory call ● Recovery scoping meeting ● Site visits	C, E, F, I, J, T		

3f. *Behavior:* Advise and guide on seismic engineering concepts and practices

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
26. Analyze and quantify seismic risks, using HAZUS-MH methodology.	C, E, F, I, J, T		
27. Review and analyze local building codes for applicability to project worksheets and HM proposals: ● State seismic codes ● FEMA Policy 204-078-2: Disaster Risk Reduction Minimum Codes and Standards ● FEMA Recovery Policy FP-104-009-4: Public Assistance Required Minimum Standards ● Additional state or locally-adopted standards	C, E, F, I, J, T		

3g. *Behavior:* Advise and guide on structural engineering concepts and practices

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
28. Review local and national building codes and advise on their relevance to project worksheets and HM proposals.	C, E, F, I, J		

3h. *Behavior:* Provide technical assistance relating to building codes

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
29. Provide technical assistance to local building code officials: ● Review latest FEMA technical guidance ● Organize/attend technical workshops for building codes officials, contractors, designers, and trade workers	E, F, I, J, T		
30. Review and interpret plans, blueprints, site layouts, specifications, and construction methods.	C, E, F, I, J		

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
31. Review project worksheets and HM proposals for building code compliance.	C, E, F, I, J		

3i. *Behavior:* **Provide benefit-cost analysis technical assistance to HM program**

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
32. Conduct, or help conduct and review, a benefit-cost analysis using AHJ-approved software and methodology for potential Section 406 mitigation or HM grant program projects.	C, E, F, I, J		
33. Develop and draft justification and narrative sections of benefit-cost analysis methodology and results: ● Prepare detailed reports supporting the accepted HM proposal reports and narratives	C, E, F, I, J		

3j. *Behavior:* **Provide technical support for review of HM projects**

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
34. For Section 406 mitigation, support consistent quality control for onsite inspection reports and HM proposals.	E, F, I, J		
35. Provide engineering support services to other stakeholder teams on disaster-specific mitigation issues: ● Evaluate proposed alternative mitigation actions in ● HM proposals and quantify the evaluation by running lower-bound benefit-cost analysis	E, F, I, J		
36. Review HM projects to determine their engineering feasibility: ● Evaluate risk reduction methodologies ● Review adherence to AHJ building and technical codes and regulations ● Review cost estimates and provide input	C, E, F, I, J		
37. Support stakeholder review of architectural and engineering designs submitted for HM grant program project application: ● Evaluate risk reduction methodologies ● Evaluate proposed alternative mitigation actions and quantify the evaluation by running lower-bound benefit-cost analysis	E, F, I, J		

3k. *Behavior:* **Gather, review, and organize disaster-related information for analysis and decision-making**

TASK	CODE	EVALUATION RECORD #	EVALUATOR INITIALS AND DATE
38. Collect perishable data (such as high-water marks) required for later analysis: ● Coordinate with the AHJ and U.S. Geological Survey to collect, verify, and disseminate publicly available data ● Coordinate with PA Site Inspectors to collect high- water marks locally; coordinate with mitigation subject-matter experts to verify PA Site Inspectors' data accuracy	E, F, I, J		

39. Conduct research to identify existing actions and projects in the HM plans and expedite development of innovative strategies: ● Use FEMA's HAZUS software and incorporate additional relevant locally-generated data, as available. ● Perform hydrologic and hydraulic studies and determine additional data requirements (such as new elevation data) ● Perform lower-bound benefit-cost analysis to determine initial viability of potential mitigation actions	E, F, I, J		
40. Coordinate with immediate supervisor to identify local, state, tribal, and territorial HM priorities.	E, F, I, J, T		
41. Obtain and evaluate available technical information relevant to the declared disaster, such as: ● Wind speed maps ● High resolution topographic maps ● Flood Insurance Rate Maps (FIRM) and Flood Insurance Studies (FIS), both effective and preliminary ● Burn severity maps ● Geologic hazard maps (such as landslide, slope stability, and debris flow) ● All applicable natural hazard maps	E, F, I, J		
42. Obtain and review operational priorities and local, state, tribal, and territorial HM strategy from immediate supervisor.	E, F, I, J, T		
43. Obtain, and then review, incident data collected to identify targeted areas for potential mitigation opportunities.	E, F, I, J		
44. Review, evaluate, and coordinate disaster-specific information, including engineering and analyses of disaster-impacted infrastructure.	E, F, I, J, T		
45. Work with immediate supervisor and HM Data Integration Specialist to create identifiers for all collected data and ensure data retention: ● Define quality assurance procedure outlining the methodology for data storage and classification (for example, file naming convention and versioning protocol)	E, F, I, J		